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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,768	01/18/2001	Ryo Ishii	108101	7723

7590
Oliff & Berridge
PO Box 19928
Alexandria, VA 22320

02/28/2003

EXAMINER

ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 02/28/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

W.L. M

Office Action Summary

Application No.
09/743,768

Applicant(s)
Ishii et al.

Examiner
Fritz Alphonse

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2675



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 7, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Particularly, it is not clear as to what is meant by "The driving method for driving an electro-optical device according to claim 1, of the subfields divided from one field having time lengths long enough so as to feed different root-mean-square voltages to different subfields".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1, 3-6, 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kameyama (U.S. Pat. No. 5,959,619).

As to claims 1, 3, Kameyama (figs. 13, 14) shows a driving method for driving an electro-optical device having a matrix of pixels in a plurality of driving fields to display an image with gray scale (col. 2, lines 60-64), the method comprising the steps of dividing each driving field into a plurality of subfields (note in fig. 13, Kameyama shows one field divided into 8 subfields; col. 7, lines 20-30); and applying each pixel with a voltage that sets the pixels to an ON state on a

subfield-by-subfield basis or a voltage that sets the pixels to an OFF state on a subfield-by-subfield basis (col. 1, lines 61 through col. 2, line 12) so that a ratio of a period of voltage application time to set the pixels to the ON state to a period of voltage application time to set the pixels to the OFF state in each field is responsive to the gray scale level of the pixel (see col. 6, lines 23-34).

As to claims 5-6 and 10-11, the claims differ from claim 1 by the additional limitations “a scanning line driving circuit that supplies the scanning line with a scanning signal that turns on the switching element in each of a plurality of subfields divided from one driving field; and a data line driving circuit that supplies the data line of the pixel with a binary signal”. However, these limitations are disclosed by Kameyama (see figure 14).

As to claim 4, the claim has substantially the limitations of claims 5 and 6. Therefore, it is analyzed as previously discussed in claims 5 and 6 above.

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As to claims 12-14, Kameyama teaches about shift register (col. 10, lines 13-23) for increasing driving speed and shifting the binary signal of a display panel. Kameyama teaches about semiconductor substrate (col. 5, lines 44-53).

Allowable Subject Matter

4. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kane et al. (U.S. Pat. No. 6,206,518) discloses a continuous drive AC plasma display device.

Yamada (U.S. Pat. No. 6,323,880) discloses a gray scale display device.

Ishida et al. (U.S. Pat. No. 6,326,938) discloses a power consumption control in display unit.

Makino (U.S. Pat. No. 6,414,654) discloses a PDP having high luminance at low power consumption.

Tokunaga (U.S. Pat. No. 6,414,658) discloses a method for driving a plasma display panel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703) 308-8534. Any inquiry of

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a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or: (703)308-6606 for informal or draft communications, please label


"PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


F. Alphonse

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February 22, 2002


STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600